

**§ 51.352 Basic I/M performance standard.**

(a) Basic I/M programs shall be designed and implemented to meet or exceed a minimum performance standard, which is expressed as emission levels achieved from highway mobile sources as a result of the program. The performance standard shall be established using the following model I/M program inputs and local characteristics, such as vehicle mix and local fuel controls. Similarly, the emission reduction benefits of the state's program design shall be estimated using the most current version of the EPA mobile source emission model, and shall meet the minimum performance standard both in operation and for SIP approval.

(1) *Network type.* Centralized testing.

(2) *Start date.* For areas with existing I/M programs, 1983. For areas newly subject, 1994.

(3) *Test frequency.* Annual testing.

(4) *Model year coverage.* Testing of 1968 and later model year vehicles.

(5) *Vehicle type coverage.* Light duty vehicles.

(6) *Exhaust emission test type.* Idle test.

(7) *Emission standards.* No weaker than specified in 40 CFR Part 85, Subpart W.

(8) *Emission control device inspections.* None.

(9) *Stringency.* A 20% emission test failure rate among pre-1981 model year vehicles.

(10) *Waiver rate.* A 0% waiver rate.

(11) *Compliance rate.* A 100% compliance rate.

(12) *Evaluation date.* Basic I/M programs shall be shown to obtain the same or lower emission levels as the model inputs by 1997 for ozone nonattainment areas and 1996 for CO nonattainment areas; and, for serious or worse ozone nonattainment areas, on each applicable milestone and attainment deadline, thereafter.

(b) *Oxides of nitrogen.* Basic I/M testing in ozone nonattainment areas shall be designed such that no increase in NO<sub>x</sub> emissions occurs as a result of the program. If the Administrator finds, under section 182(b)(1)(A)(i) of the Act pertaining to reasonable further progress demonstrations or section 182(f)(1) of the Act pertaining to provi-

sions for major stationary sources, that NO<sub>x</sub> emission reductions are not beneficial in a given ozone nonattainment area, then the basic I/M NO<sub>x</sub> requirement may be omitted. States shall implement any required NO<sub>x</sub> controls within 12 months of implementation of the program deadlines required in § 51.373 of this subpart, except that newly implemented I/M programs shall include NO<sub>x</sub> controls from the start.

(c) *On-board diagnostics.* [Reserved]

(d) *Modeling requirements.* Equivalency of emission levels which will be achieved by the I/M program design in the SIP to those of the model program described in this section shall be demonstrated using the most current version of EPA's mobile source emission model and EPA guidance on the estimation of input parameters. Areas required to implement basic I/M programs shall meet the performance standard for the pollutants which cause them to be subject to basic requirements. Areas subject as a result of ozone nonattainment shall meet the standard for VOCs and shall demonstrate no NO<sub>x</sub> increase, as required in paragraph (b) of this section.

**§ 51.353 Network type and program evaluation.**

Enhanced I/M programs shall be operated in a centralized test-only format, unless the state can demonstrate that a decentralized program is equally effective in achieving the enhanced I/M performance standard. Basic I/M programs can be centralized, decentralized, or a hybrid at the state's discretion, but shall be demonstrated to achieve the same emission reduction as the program described in § 51.352 of this subpart.

(a) *Presumptive equivalency.* A decentralized network consisting of stations that only perform official I/M testing (which may include safety-related inspections) and in which owners and employees of those stations, or companies owning those stations, are contractually or legally barred from engaging in motor vehicle repair or service, motor vehicle parts sales, and motor vehicle sale and leasing, either directly or indirectly, and are barred from referring vehicle owners to particular

providers of motor vehicle repair services (except as provided in § 51.369(b)(1) of this subpart) shall be considered equivalent to a centralized, test-only system. States may allow such stations to engage in the sale of refreshments for the use of employees and customers waiting at the station and may fulfill other functions typically carried out by the state such as renewal of vehicle registration and driver's licenses, or tax and fee collections.

(b) *Case-by-case equivalency.* (1) Credits for test-and-repair networks, i.e., those not meeting the requirements of paragraph (a) of this section, are assumed to be 50% less than those for a test-only network for the tailpipe emission test, purge test, evaporative system integrity test, catalyst check, and gas cap check; and 75% less for the evaporative canister checks, PCV check, and air system checks. Smaller reductions in credits for the various test protocols may be claimed if a state can demonstrate to the satisfaction of the Administrator that based on past performance with the specific test-type and inspection standards employed, its test-and-repair system will exceed these levels. At a minimum, such a demonstration shall include:

(i) Surveys that assess the effectiveness of repairs performed on vehicles that failed the tailpipe emission test and evaporative system tests;

(ii) In programs including tampering checks, measurement of actual tampering rates, their change over time, and the change attributable to finding and fixing such tampering as opposed to deterrence effects; and

(iii) The results of undercover surveys of inspector effectiveness as it relates to identifying vehicles that need repair.

(2) In the case of hybrid systems, which may be implemented in basic I/M areas, including both test-only and test-and-repair facilities, full credit shall apply to the portion of the fleet initially tested and subsequently retested at a test-only facility meeting the requirements of paragraph (a) of this section, and to the portion of the fleet initially tested and failed at a test-and-repair facility but subsequently passing a comprehensive retest at a test-only facility meeting those

same requirements. The credit loss assumptions described in paragraph (b)(1) of this section shall apply to the portion of the fleet initially passed at a test-and-repair facility, and to the portion initially failed at a test-only facility and retested at a test-and-repair facility.

(3) Areas operating test-and-repair networks or hybrid networks may, in the future, claim greater effectiveness than described in paragraph (b)(1) of this section, if a demonstration of greater effectiveness is made to the satisfaction of the Administrator using the program evaluation protocol described in paragraph (c) of this section.

(c) *Program evaluation.* Enhanced I/M programs shall include an ongoing evaluation to quantify the emission reduction benefits of the program, and to determine if the program is meeting the requirements of the Clean Air Act and this subpart.

(1) The state shall report the results of the program evaluation on a biennial basis, starting two years after the initial start date of mandatory testing as required in § 51.373 of this subpart.

(2) The evaluation shall be considered in establishing actual emission reductions achieved from I/M for the purposes of satisfying the requirements of sections 182(g)(1) and 182(g)(2) of the Clean Air Act, relating to reductions in emissions and compliance demonstration.

(3) The evaluation program shall consist, at a minimum, of those items described in paragraph (b)(1) of this section and mass emission test data using the procedure specified in § 51.357(a)(11) of this subpart, or any other transient, mass emission test procedure approved as equivalent, and evaporative system checks, specified in § 51.357(a)(9) and (10) of this subpart, for model years subject to those evaporative system test procedures. The test data shall be obtained from a representative, random sample, taken at the time of initial inspection (before repair), of at least 0.1 percent of the vehicles subject to inspection in a given year. Such vehicles shall receive a state administered or monitored IM240 mass emission test or equivalent, as specified in this paragraph (c)(3), at the time the initial test is due.

(4) The program evaluation test data shall be submitted to EPA and used by the state to calculate local fleet emission factors, to assess the effectiveness of the I/M program, and to determine if the performance standard is being met. EPA will update its emission factor model periodically to reflect the appropriate emission reduction effectiveness of program elements within §51.351 of this subpart based on actual performance.

(d) *SIP requirements.* (1) The SIP shall include a description of the network to be employed, the required legal authority, and, in the case of areas making claims under paragraph (b) of this section, the required demonstration.

(2) The SIP shall include a description of the evaluation schedule and protocol, the sampling methodology, the data collection and analysis system, the resources and personnel for evaluation, and related details of the evaluation program, and the legal authority enabling the evaluation program.

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#### §51.354 Adequate tools and resources.

(a) *Administrative resources.* The program shall maintain the administrative resources necessary to perform all of the program functions including quality assurance, data analysis and reporting, and the holding of hearings and adjudication of cases. A portion of the test fee or a separately assessed per vehicle fee shall be collected, placed in a dedicated fund and retained, to be used to finance program oversight, management, and capital expenditures. Alternatives to this approach shall be acceptable if the state can demonstrate that adequate funding of the program can be maintained in some other fashion (e.g., through contractual obligation along with demonstrated past performance). Reliance on future uncommitted annual or biennial appropriations from the state or local General Fund is not acceptable, unless doing otherwise would be a violation of the state's constitution. This section shall in no way require the establishment of a test fee if the state chooses to fund the program in some other manner.

(b) *Personnel.* The program shall employ sufficient personnel to effectively carry out the duties related to the program, including but not limited to administrative audits, inspector audits, data analysis, program oversight, program evaluation, public education and assistance, and enforcement against stations and inspectors as well as against motorists who are out of compliance with program regulations and requirements.

(c) *Equipment.* The program shall possess equipment necessary to achieve the objectives of the program and meet program requirements, including but not limited to a steady supply of vehicles for covert auditing, test equipment and facilities for program evaluation, and computers capable of data processing, analysis, and reporting. Equipment or equivalent services may be contractor supplied or owned by the state or local authority.

(d) *SIP requirements.* The SIP shall include a description of the resources that will be used for program operation, and discuss how the performance standard will be met.

(1) The SIP shall include a detailed budget plan which describes the source of funds for personnel, program administration, program enforcement, purchase of necessary equipment (such as vehicles for undercover audits), and any other requirements discussed throughout, for the period prior to the next biennial self-evaluation required in §51.366 of this subpart.

(2) The SIP shall include a description of personnel resources. The plan shall include the number of personnel dedicated to overt and covert auditing, data analysis, program administration, enforcement, and other necessary functions and the training attendant to each function.

#### §51.355 Test frequency and convenience.

(a) The performance standards for I/M programs assume an annual test frequency; other schedules may be approved if the required emission targets are achieved. The SIP shall describe the test schedule in detail, including the test year selection scheme if testing is other than annual. The SIP shall include the legal authority necessary